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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/416,501 10/08/99 DOYLE

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EXAMINER

ORTIZ,E

ART UNIT

PAPER NUMBER

2815

DATE MAILED:
01/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/416,501

Applicant(s)

Doyle

Examiner

Edgardo Ortiz

Group Art Unit

2815

Responsive to communication(s) filed on Dec 14, 2000

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 14 and 20-27 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 14 and 20-27 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

This Office Action is in response to an amendment filed November 2, 2000 on which Applicant canceled Claims 17-19 and added new Claims 25-27.

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "semiconductor film formed on said second oxide film, said semiconductor having a first level of transistors and a second level of transistors made of single crystal silicon disposed about a Z-dimension of said semiconductor film" as claimed on Claim 20 and the "second substrate with a metal film formed thereon" as claimed on Claim 24-27, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claim 14 and 22-27 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Hydrogen ions which are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The implantation of hydrogen ions which Applicant describes as the material needed for the creation of the "damaged surface" is missing on the claim, thus not enabling the "damaged surface" as claimed.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The means and bounds of the claim are not clear in terms of the claimed "damaged surface" which is not a component of the final structure claimed by Applicant. The use of the damaged surface is merely an intermediate step towards the manufacture of the final structure claimed by Applicant.

Claims 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant includes a first oxide film and a second oxide layer which includes first and second level of transistors. Therefore, it is unclear as to what Applicant refers to "a

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semiconductor film formed on said second oxide film, said semiconductor having a first level of transistors and a second level of transistors made of single crystal silicon disposed about a Z-dimension of said semiconductor film".

Regarding claims 23-27, the word "means" is preceded by the word(s) "An apparatus" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14, 20 and 22 are rejected under U.S.C. 102 (b) as being anticipated by Applicant's instant application disclosure. With regard to Claim 14, as best examiner is able to ascertain the claimed invention, Applicant's disclosure teaches on pages 2-3, a first substrate (102) with a semiconductor film thereon (See Figure 1), wherein the semiconductor film is demarcated from the substrate by a damaged surface. The layers on the disclosed device have

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been produced by lithography tools utilized in the process of fabrication, hence the "damage" surface. It is noted that the fabrication of damage surfaces is not limited by the use of dopant implants, as the surface of a substrate can be "damaged" by known methods in the semiconductor art, such as the one discussed above which does not require implantation, but rather lithography techniques.

With regard to Claim 20, the acknowledged prior art figure 2 and the description thereof of pages 3-4 of the instant application disclosure, anticipates the claimed invention. For instance, Figure 2 teaches a substrate (202), a first oxide film (205) formed on the substrate, a metal film formed on the first oxide film, a second oxide layer (206) formed on said metal film. Furthermore, as disclosed on page 4, providing a second layer of transistors made of single crystal silicon has been known in the art, whether that known process melts the lines.

With regard to Claim 22, the acknowledged prior art figure 2 and the description thereof of pages 3-4 of the instant application disclosure, anticipates the claimed invention. Figure 2 discloses a first level of transistors (204) and a second level of transistors (208) disposed in a z-dimension. As disclosed on page 4, providing a second layer of transistors made of single crystal silicon has been known in the art, whether that known process melts the lines.

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Edgardo Ortiz (Art Unit 2815), whose telephone number is (703) 308-6183. In case the Examiner can not be reached, you might call Supervisor Eddie Lee at (703) 308-1690. Any inquiry of a general nature or relating to the status of this application should be directed to the Group 2800 receptionist whose telephone number is (703) 308-0956.

EO/AU 2815

1/13/01



EDDIE C. LEE
PRIMARY EXAMINER